

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for yielding a virtual processor within a logically partitioned data processing system, wherein the system supports a plurality of partitions, a first of which includes a plurality of virtual processors used to schedule threads and that share at least one CPU, and wherein the system further includes a hypervisor configured to assign and dispatch the CPU to the plurality of virtual processors, the method comprising:

requesting with a yielding virtual processor a yield of the CPU upon which the virtual processor is executing, including designating a target virtual processor from among the plurality of virtual processors; and

switching-in the target virtual processor for execution by the CPU in response to the requested yield.

2. (Original) The method according to claim 1, wherein the target virtual processor requires access to the CPU, wherein the yielding virtual processor controls the CPU.

3. (Original) The method according to claim 1, further comprising generating a yield command from the virtual processor, wherein the yield command includes pointer and status information regarding the target virtual processor.

4. (Original) The method according to claim 1, further comprising assigning status information to the target virtual processor.

5. (Original) The method according to claim 1, further comprising assigning a target count to the target virtual processor.

6. (Previously Presented) The method according to claim 5, further comprising comparing the target count to a presented count conveyed in the requested yield.

7. (Original) The method according to claim 1, further comprising aborting the yield in response to a yield-to-active command.

8. (Previously Presented) The method according to claim 1, further comprising designating the yielding virtual processor as waiting for the target virtual processor.

9. (Previously Presented) The method according to claim 1, further comprising designating the target virtual processor as having a yielding processor waiting for the yielding virtual processor.

10. (Original) The method according to claim 1, further comprising storing the state of the yielding virtual processor.

11. (Currently Amended) An apparatus comprising:

a logically partitioned computer including a plurality of logical partitions, a first of which including a plurality of virtual processors used to schedule threads and that share at least one CPU; and

a program resident in a hypervisor of the computer, wherein the program is configured to assign and dispatch the CPU to the plurality of virtual processors, the program configured to initiate a request for a yield of the CPU controlled by a yielding virtual processor, wherein the request designates a target virtual processor from among

the plurality of virtual processors; and further configured to logically reassign control of the CPU from the yielding virtual processor to the target virtual processor.

12. (Original) The apparatus according to claim 11, wherein the target virtual processor requires access to the CPU, wherein the yielding virtual processor controls the CPU.

13. (Original) The apparatus according to claim 11, wherein the program initiates generation of a yield command from the virtual processor, wherein the yield command includes pointer and status information regarding the target virtual processor.

14. (Original) The apparatus according to claim 11, wherein the program initiates an assignment of a target count to the target virtual processor.

15. (Previously Presented) The apparatus according to claim 14, wherein the program initiates a comparison of the target count to a presented count conveyed in the request for the yield.

16. (Original) The apparatus according to claim 11, wherein the program initiates abandonment of the yield in response to a yield-to-active command.

17. (Previously Presented) The apparatus according to claim 11, wherein the program initiates a designation of the yielding virtual processor as waiting for the target virtual processor.

18. (Previously Presented) The apparatus according to claim 11, wherein the program designates the target virtual processor as having a yielding processor waiting for the yielding virtual processor.

19. (Currently Amended) A program product, comprising:

a program resident in a hypervisor configured to assign and dispatch a CPU to a plurality of virtual processors used to schedule threads, wherein the program is further configured to initiate a request for a yield of the CPU controlled by a yielding virtual processor among a plurality of virtual processors in a logically partitioned data processing system, wherein the request designates a target virtual processor from among the plurality of virtual processors; and further configured to logically reassign control of the CPU from the yielding virtual processor to the target virtual processor; and

a tangible signal bearing medium bearing the first program.

20. (Canceled)

21. (Previously Presented) The apparatus according to claim 11, wherein at least one of the virtual processors of the plurality of virtual processors includes a schedule used to determine allocation as between the plurality of virtual processors of processing cycles of the CPU.